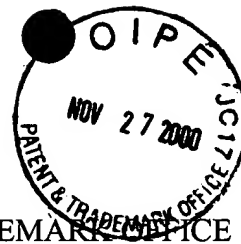


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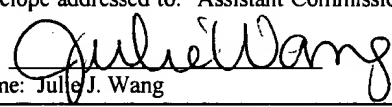


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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	MURAKAMI et al.	Examiner:	Unknown
Serial No.:	09/622974	Group Art Unit:	1632
Filed:	October 11, 2000	Docket No.:	8279.284USWO
Title:	RECOMBINANT PROTEIN POSSESSING HUMAN HEPATITIS C VIRUS RNA-DEPENDENT POLYMERASE ACTIVITY AND METHOD OF PRODUCING THE SAME		

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service, as first class mail, with sufficient postage, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on November 22, 2000.

By: 
Name: Julie J. Wang

#7

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted within three months of the filing date of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided.

Applicant hereby brings attention to the Examiner that three of the references listed were cited in an International Search Report dated December 11, 1998. A copy of the International Search Report is enclosed. Since the International Search Report is in English, no English translation of the listed foreign references are required, pursuant to MPEP § 609(A)3.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

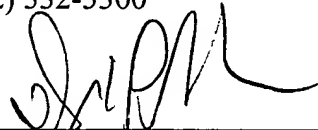
Please charge any additional fees or credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, MN 55402-0903
(612) 332-5300

Dated: November 22, 2000

By



Douglas P. Mueller
Reg. No. 30,300
DPM:jjw

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 8279.284USWO	Application Number: 09/622974
	Applicant: MURAKAMI et al.	
	Filing Date: October 11, 2000	Group Art Unit: 1632

RECEIVED**NOV 30 2000****TECH CENTER 1600/2900****U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	JP 9-299079	Nov. 25, 1997	Japan			Abstract	
	WO 95/28243	Oct. 26, 1995	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	De Francesco et al. "RNA-Dependent RNA Polymerase of Hepatitis C Virus" <i>Methods in Enzymology</i> , Vol. 275 (1996): pp. 58-67.
	Honda et al. "Sequence analysis of putative structural regions of hepatitis C virus isolated from 5 Japanese patients with hepatocellular carcinoma", <i>Archives of Virology</i> , vol. 128 (1993): pp. 163-169.
	Lohmann et al. "Biochemical Properties of Hepatitis C Virus NS5B RNA-Dependent RNA Polymerase and Identification of Amino Acid Sequence Motifs Essential for Enzymatic Activity", <i>Journal of Virology</i> , vol. 71, no. 11 (Nov. 1997): pp. 8416-8428.
	Murakami et al. "Human Hepatitis Virus X Gene Encodes a Regulatory Domain That Represses Transactivation of X Protein," <i>Journal of Biological Chemistry</i> , vol. 269, no. 21 (May 1994): pp. 15118-15123.
	Yi et al. "Delineation of Regions Important for Heteromeric Association of Hepatitis C Virus E1 and E2," <i>Virology</i> , vol. 231 (1997): pp. 119-129.
	Yuan et al. "Expression, Purification, and Partial Characterization of HCV RNA Polymerase," <i>Biochemical and Biophysical Research Communications</i> , vol. 232 (1997): pp. 231-235.

**23552**

PATENT TRADEMARK OFFICE

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

INTERNATIONAL SEARCH REPORT

International application No. PCT/JP98/04204

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A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁶ C12N9/12, C12N15/51, C12N1/21 // (C12N9/12, C12R1:19),
(C12N15/51, C12R1:01), (C12N1/21, C12R1:19)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁶ C12N9/12, C12N15/51, C12N1/21

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
SwissProt/PIR/GeneSeq, WPI (DIALOG), BIOSIS (DIALOG)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X/ Y	VOLKER LOHMANN et al., "Biochemical Properties of Hepatitis C Virus NS5B RNA-Dependent RNA Polymerase and Identification of Amino Acid Sequence Motifs Essential for Enzymatic Activity" JOURNAL OF VIROLOGY. (1997) Vol. 71, No. 11, p.8416-8428	1-2, 4/ 1-8
Y	JP, 9-299079, A (Japan Energy Corp.), 25 November, 1997 (25. 11. 97) (Family: none)	1-8
Y	WO, 9528243, A1 (Pharmacia and Upjohn Co.), 16 December, 1997 (16. 12. 97) & JP, 9-512426, A	1-8

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search
11 December, 1998 (11. 12. 98)Date of mailing of the international search report
22 December, 1998 (22. 12. 98)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer